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October 25, 2018

Ex Parte
Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: *Modernizing the FCC Form 477 Data Program*, WC Docket No. 11-10

Dear Ms. Dortch:

On October 23, 2018, Rick Hitz, Phil Treuer, and Tim Stelzig of GCI Communication Corp. ("GCI"), Ian Moore, outside mapping consultant to GCI, and the undersigned met with Steve Rosenberg, Chief Data Officer for the Wireline Competition Bureau, and Suzanne Mendez, Ying Ke, and John Emmett of the Industry Analysis and Technology Division. Messrs. Hitz, Treuer, Moore, and Emmett participated by telephone.

In light of recent filings regarding the possibility of basing the Form 477 program for fixed broadband on locations or street segments, GCI provided information about available mapping resources for Alaska. GCI estimates that perhaps 20 percent of locations in Alaska do not have valid street addresses. GCI bases this estimate on its own service addresses, 20 percent of which are post office boxes, General Delivery, or do not match a street address from the relevant Alaska borough (county) or the Census Bureau's TIGER data. Outside of Anchorage, Fairbanks, Juneau, and the Kenai Peninsula and Mat-Su areas near Anchorage, the estimate of locations without valid street addresses jumps to 75 percent. For its own business purposes, GCI sometimes records these locations in ways that allow technicians and other personnel to find them when needed, such as "third, brown house on main road." In other cases, GCI gets directions from the customer at the time of the service request.

We discussed other possible sources of address information. GCI is not aware of any commercially available address databases for Alaska that are substantially complete.[1] No commercial database could create valid USPS street addresses where none exist. There are several commercial entities that have geospatial information for a subset of physical structures—though often without any information identifying the nature of the structure, which limits the utility of the geospatial information. Those geospatial datasets also are incomplete. Google Maps for example provides less information about individual locations in many parts of remote Alaska than it does in other areas. Microsoft's new computer generated "US Building

[1] *See also* Letter from Ola Oyefusi, Director, Federal Regulatory, AT&T Services, Inc., to Marlene H. Dortch, Secretary, FCC, WC Docket Nos. 11-10 & 10-90, at 1 (filed Oct. 12, 2018 and corrected by erratum on Oct. 16, 2018) (noting that in AT&T's experience, the quality and completeness of rural address and geocoding data "lags dramatically behind what is available for urban and suburban areas").

Footprints" dataset currently only has very limited coverage in Alaska, primarily in Anchorage. The OpenAddress database contains address locations for a few Alaska municipalities and boroughs, but currently has no addresses for remote communities. The Census Bureau purportedly has an accurate, up to date inventory of all known living quarters in the United States, Puerto Rico, and associated island areas, though these Master Address file ("MAF") data are non-public.

GCI also reviewed road segment information. The most definitive source of road segments is the Census Bureau's TIGER data. While TIGER data are available for remote Alaska, they are often spatially inaccurate, sometimes by hundreds of meters. For many communities, the TIGER mapping appears to be based on sketches that approximate the locations of roads but the result bears little resemblance to reality. In addition, in some areas TIGER road segments can be more than 10 miles long, meaning that fixed broadband reporting along these road segments would also be at granularity of 10 miles. Finally, a fair number of locations in remote Alaska are not on roads at all but are accessible by boat or plane or by what TIGER classifies as "pedestrian trails."

GCI shares this information not to suggest that the lack of complete data in Alaska should prevent reforms. Rather, GCI wants the Commission to be aware of the challenges of more granular reporting in Alaska and to appreciate that the good faith reporting of the Alaska providers cannot correct the flaws in these data sources.

Whatever unit of coverage the Commission ultimately adopts, GCI will identify the served units by overlaying its available coverage data. As ACA pointed out, however, no provider's coverage data are perfect.[2] GCI maintains a database of serviceable locations in order to respond to queries about whether it can provide service and for marketing and planning purposes. As GCI upgrades plant or discovers obstacles to provisioning service, it updates this information. But like other providers, GCI's serviceability data are far from complete, and often GCI knows with certainty that it can serve a particular location after it turns up service, not before.

The current census block methodology by its nature forgives many of the gaps and imperfections in providers' serviceability data, but a more granular methodology will more closely mirror the quality of the underlying data.[3] For example, if a single location is passed by cable plant but cannot actually be served, under the census block approach the location has no bearing on the filing unless it is the only served location in the census block. Similarly, a specific structure may not be able to receive a fixed wireless signal because of an obstacle to the

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2 *See* Letter from Thomas Cohen and J. Bradford Currier to Marlene H. Dortch, Secretary, FCC, WC Docket No. 11-10, at 2 (filed Oct. 19, 2018) (reporting that most smaller cable operators report that their databases of homes passed are "far from perfect"); *id.* at 7.

3 *See also id.* at 4-5 (noting that a street segment approach that relies on overlaying a provider's "homes passed" data onto the Census Bureau's flawed TIGER/Line data will result in more incorrectly reported street segments than census blocks under the current system).

line of sight but so long as other nearby structures receive service, the census block will be correctly marked as served. Under a location-based approach, however, these locations may be reported as served when they are not. Similarly, a provider may be able to extend service to the next house down the street within a commercially reasonable time or may be able to serve a newly-built home, but its serviceability database may not include these locations.[4]

A reformed Form 477 program that requires far more granular information should take a reasonable approach toward accuracy. Providers can reasonably be required to certify to providing the Commission with the best information that they have about the areas or locations that they can serve. The information may not be perfect, but as providers develop better information, the Form 477 data will improve. For example, Alaska Plan participants are required to report the geocoordinates of the locations they have upgraded in fulfillment of their commitments as well as the locations of community anchor institutions that are served by fiber or microwave. Gathering the geocoordinates from remote villages is an expensive, manual process, but as these data become available they will also be useful to the Form 477 program.

The alternative—requiring providers to certify that their data accurately reflect the serviceability of every location (or other unit of reporting)—would place a phenomenal burden on filers, particularly in remote areas.[5] Without any business reason to do so, providers would be required to simulate provisioning service to every location within their service areas that is not already in service or has not been in service before.

GCI appreciates the need for more granular data but encourages the Commission to consider the costs. The cost of Form 477 reporting should not increase to the point where it takes away resources from the actual deployment.

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4 *See id.* (noting that a "'homes passed' database rarely includes addresses where a home is not yet passed but service is 'available'"; these are evaluated by engineers to determine whether they can be served).

5 *See id.* (stating that the costs to "walk the plant" to verify address-specific serviceability information would outweigh the benefits).

GCI also expressed its support for moving to an annual filing cycle and for a reasonable transition period after any reforms are adopted.

Please contact me if you have any questions.

Sincerely,

Julie A. Veach
Counsel to GCI Communication Corp.

cc: Steve Rosenberg
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